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## **EF 3 – Construction and Engineering**

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# Table of Contents

<b>1</b>	<b>Purpose and Scope .....</b>	<b>EF 3-1</b>
<b>2</b>	<b>Policies and Agreements .....</b>	<b>EF 3-2</b>
2.1	Policies.....	EF 3-2
2.2	Agreements.....	EF 3-2
<b>3</b>	<b>Situation and Assumptions.....</b>	<b>EF 3-2</b>
3.1	Situation .....	EF 3-2
3.2	Assumptions .....	EF 3-2
<b>4</b>	<b>Roles and Responsibilities .....</b>	<b>EF 3-3</b>
4.1	EF 3 Actions by Phase of Emergency Management.....	EF 3-3
4.1.1	Preparedness .....	EF 3-3
4.1.2	Response .....	EF 3-4
4.1.3	Recovery .....	EF 3-4
4.1.4	Mitigation .....	EF 3-5
<b>5</b>	<b>Concept of Operations .....</b>	<b>EF 3-5</b>
5.1	General .....	EF 3-5
5.2	Notifications .....	EF 3-6
5.3	Access and Functional Needs Population.....	EF 3-6
<b>6</b>	<b>Emergency Function Annex Development and Maintenance .....</b>	<b>EF 3-6</b>
<b>7</b>	<b>Supporting Documents .....</b>	<b>EF 3-6</b>
<b>8</b>	<b>Appendices .....</b>	<b>EF 3-7</b>

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**EF 3. Construction & Engineering**

<b>EF 3 Tasked Agencies</b>	
<b>Primary Agencies</b>	Shasta County Department of Public Works
<b>Supporting Agencies</b>	Shasta County Resource Management, Building Division
<b>Primary State Agency</b>	California Government Operations – Department of General Services

## 1 Purpose and Scope

Emergency Function (EF) 3 provides and coordinates infrastructure and engineering services during all phases of emergency management. EF 3 resources (personnel, equipment, facilities, materials, and supplies) will be coordinated through the Shasta County (County) Emergency Operations Center (EOC) following established procedures and agreements. Resources may also be obtained through contractors, vendors, and suppliers. This support function contains various sub-functions, are outlined below.

Public works and engineering resources, under the authority of EF 3, will be used to coordinate and/or assist in the following activities associated with emergency response:

- Clear debris from transportation infrastructure.
- Coordinate the closure and repair of transportation infrastructure.
- Repair and restore damaged public systems (e.g., water, wastewater, solid waste, and stormwater systems).
- Stabilize damaged public and private structures to facilitate search and rescue and/or protect the public’s health and safety.
- Identify and label uninhabitable/unsafe structures.
- Establish priorities and processes for issuing demolition and building permits.
- Develop and designate emergency collection, sorting, and debris routes and sites for debris clearance from public and private property.
- Determine extent of damage to the following systems: transportation, water, solid waste, electrical, natural gas, wastewater, and hazardous materials.
- Prioritize and initiate recovery efforts to restore, repair, and mitigate city- and County-owned infrastructure.
- Provide technical assistance with respect to flooding, water management, structure integrity assessments, and assessments of impacts to infrastructure.

**EF 3. Construction & Engineering****2 Policies and Agreements****2.1 Policies**

The following policies are currently in place:

- Shasta County Code, Chapter 2.72.
- Shasta County Resolution Number 95-175 establishing the Shasta Operational Area (September 26, 1995).
- Government Code, Title 2, Division 1, Chapter 7 (California Emergency Services Act).
- Title 2, Division 1, Chapter 7.5 (California Natural Disaster Assistance Act).
- California Code of Regulations, Title 19, Division 2 (Standardized Emergency Management System Regulations).
- Shasta County Code Chapter 2.40

**2.2 Agreements**

The following agreements are currently in place:

- None at this time.

**3 Situation and Assumptions****3.1 Situation**

Damage to public and private property and infrastructure may be unprecedented in an emergency or disaster, including weakened or destroyed structures, homes, public and critical facilities, roads, and bridges. Debris may make transportation routes impassible. Equipment used to repair or otherwise reinforce these structures may also be damaged. A catastrophic event may adversely affect the ability of local responders to perform their emergency duties.

**3.2 Assumptions**

- A major emergency or disaster may cause extensive damage to or severely weaken property and infrastructure. Homes, public buildings, bridges, and other facilities may have to be reinforced or demolished to ensure safety. Debris may make streets and highways impassible. Public utilities may be damaged or be partially or fully inoperable.
- Access to disaster areas may depend on the re-establishment of ground routes. In many locations, debris clearance and emergency road

**EF 3. Construction & Engineering**

repairs will be given top priority to support immediate lifesaving emergency response activities.

- Damage assessment of the disaster area will be required to determine potential work load.
- Assistance from the State and federal government may be needed to clear debris, perform damage assessments and structural evaluations, make emergency repairs to essential public facilities, reduce hazards by stabilizing or demolishing structures, and provide emergency water for human health needs and firefighting.
- Debris may include trees, rocks, dirt and sand, asphalt, building materials, metal, garbage and sewage, damaged vehicles, various hazardous materials, tires, and personal property.
- Hazardous chemical, biological radiological, nuclear, and explosive materials will need special handling from appropriately trained and equipped teams for proper treatment, storage, transportation, and/or disposal.
- Following disasters that cause significant debris, existing disposal sites may not provide effective debris management solutions because of capacity limitations and their need to provide continuous waste management operations for day-to-day debris generation.
- Emergency environmental waivers and legal clearances may be needed for disposal of materials from debris clearance and demolition activities for the protection of threatened public and private improvements.
- Unattended and long-standing debris may pose safety and health threats to the public.
- Significant numbers of personnel with engineering and construction skills, along with construction equipment and materials, may be required from outside the disaster area.

## **4 Roles and Responsibilities**

During emergencies, public work activities will be managed by the Public Works Director through the existing divisions.

### **4.1 EF 3 Actions by Phase of Emergency Management**

#### **4.1.1 Preparedness**

- Maintain an inventory of available resources, including personnel and training within each department.

**EF 3. Construction & Engineering**

- Develop and maintain plans and procedures for emergency and disaster situations.
- Develop and maintain mutual aid agreements with neighboring jurisdictions and the private sector.
- Coordinate emergency planning activities and information with neighboring jurisdictions and the EF Coordinator.
- Maintain and test communication systems.
- Identify vital and essential roadways, bridges, and facilities to establish repair priority in the event that any of these become damaged.
- Ensure that personnel are trained in emergency responsibilities.
- Establish contact with private resources that could provide support during an emergency.

**4.1.2 Response**

- Provide a senior official to operate from the EOC or other command location to ensure coordination with other agencies, as necessary.
- Provide public works and engineering support on a priority basis as determined by the EOC and the Incident Commander(s).
- Inspect damage to streets, bridges, and public buildings.
- Clear roads to facilitate emergency operations.
- Close roads and construct barricades as directed.
- Make recommendations regarding the priority of repairs.
- Request outside assistance from surrounding jurisdictions and the private sector as required.
- Conduct other response actions as dictated by the situation.
- Maintain records and document all expenditures during the emergency situation.

**4.1.3 Recovery**

- Continue to repair infrastructure and buildings on a priority basis.
- Continue all activities in coordination with the EOC based on the requirements of the incident.

**EF 3. Construction & Engineering**

- Provide information concerning dangerous areas or other existing problems.
- Provide liaison between local agencies and federal damage assessment activities.
- Establish control measures related to emergency solid waste disposal.
- Participate in after-action reports and critiques.
- Document disaster and restoration cost for possible federal reimbursement.

**4.1.4 Mitigation**

- Identify and seek funds for retrofitting critical facilities and providing auxiliary power.
- Recommend changes in planning, zoning, and building codes to prevent or lessen the effect of future disasters.
- Participate in the hazard identification process and identify and correct vulnerabilities in the public works system.
- Regularly maintain equipment to ensure it is in good running order.

**5 Concept of Operations****5.1 General**

- In accordance with the Basic Plan, SEMS, and this EF Annex, the County Department of Public Works is the primary agency responsible for coordinating public works and engineering activities. Plans and procedures developed by the primary and supporting agencies provide the framework for carrying out these activities.
- Requests for assistance with public works and engineering resources will be generated one of two ways: they will be forwarded to the County EOC, or they will be issued in accordance with established mutual aid agreements.
- The County EOC will provide guidance for the coordination of public works and engineering resources.
- Public works and engineering support requirements that cannot be met at the local level should be forwarded to the State for assistance. If needed, federal assistance may be requested by the Governor.

**EF 3. Construction & Engineering****5.2 Notifications**

- The Director of Emergency Services will notify the County Department of Public Works and supporting agencies of EOC activations and request that their representatives report to the EOC to coordinate public works and engineering activities.
- As additional EOC staffing needs become apparent, other support and partnering agency personnel may be asked to report to the EOC to assist with public works and engineering activities.

**5.3 Access and Functional Needs Population**

The County will seek technical assistance to ensure that accessibility standards are addressed during infrastructure restoration and activities. Existing plans and procedures will be used to reestablish critical human services for children as well as others with access and functional needs.

**6 Emergency Function Annex Development and Maintenance**

The County Department of Public Works will be responsible for coordinating regular review and maintenance of this EF Annex. Each primary and supporting agency will be responsible for developing plans and procedures that address assigned tasks.

**7 Supporting Documents**

The following documents are currently in place:

**Shasta County**

- Shasta County Code (Chapter 2.72)
- Shasta County Multi-Jurisdictional Hazard Mitigation Plan (2011)

**State of California**

- California Standardized Emergency Management System (SEMS)
- California Disaster and Civil Defense Master Mutual Aid Agreement (2011)
- California Emergency Plan: EF 1 – Transportation, EF 3 – Construction & Engineering, EF 12 – Utilities, and EF 14 – Recovery

**Federal**

- National Response Framework: ESF 1 – Transportation, ESF 3 – Public Works and Engineering, ESF 12 – Energy, and ESF 14 – Long-Term Community Recovery

## 8 Appendices

None at this time.

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